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from the
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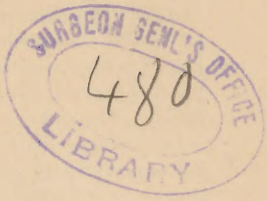

VII.

A CASE OF SUPPOSED DISSEMINATED SCLEROSIS OF THE BRAIN AND SPINAL CORD.

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I CAN hardly doubt that the following case will be regarded as an extremely interesting illustration of disease of the nervous system. The early symptoms affected the organs of vision, and these continued to have prominent importance to the end. While my judgment as to the essential disease of the nervous system was held in suspense during life, I did expect to have the cause of the symptoms revealed by an autopsy. But when the brain was examined by two skilful pathologists, they could, with the naked eye, detect nothing in it abnormal. I then began to search the literature within my reach, for an explanation of the phenomena, and was driven to the conclusion announced in the title of the case. I may perhaps be justly criticised for not having made this inquiry beforehand. I am willing that others should take such profit as they may derive from the recital, even if it be at my own expense. I saw the patient, during the earlier part of the two years during which her sickness lasted, but three or four times, and have been obliged to rely for an account of her condition during this time upon statements made to me by her sister.

Miss A., æt. 28, born in England, single, dressmaker, was brought to my office in September, 1869, by Dr. Percy, who has kindly given me many of the details of the case. She has had pain in the forehead and temples for more than a year; has had pain up and down the back, and she described it as going from the back to the brain. She had a temporary loss of power in the muscles of the mouth and tongue; on one occasion, when trying to eat a piece of melon, she could not keep

it in her mouth. It may be remarked that this symptom returned at a later period, and became most important.

She began to complain of her eyes a few months before I saw her; they gave her pain; the lids would close beyond her control; she had irregular double vision, and dimness of sight. She is no longer able to sew. I have no notes of the degree of vision, nor of the visual field, but sight was about $\frac{20}{100}$ or less. In attempting to analyze the double images it was found impossible to put them down in a regular scheme, because they were extremely variable. No muscles were completely paralyzed, but nearly all seemed to be affected by paresis, or by spasmodic action. The images were so far asunder that fusion by prisms was impossible.

Ophthalmoscopic examination showed neuritis optica on both sides, without infiltration into the retina. The appearances of the disc were infiltration, opaque whiteness, and indistinct border.

The implication of several cranial nerves, the severe and constant headache, and the history of the case, led me to an unfavorable prognosis, and to a qualified diagnosis of tumor within the skull.

The sequel showed that I did not attach sufficient importance to the unsteady character of the paresis of ocular muscles and to the tremor of the general muscular system.

The patient's general health had been fair, notwithstanding a sedentary life—there was no sign of syphilis, nor of heart or of kidney disease.

The bromide of potassium was prescribed. I again saw the patient after some months, and found no amendment; on the contrary, by incessant headache, her strength was materially reduced.

In the early autumn of 1870, after an unusually severe attack of headache, she was obliged to take her bed, and was never after able to walk. If she attempted it, her feet would jerk, and, as her sister described the effort, they would "move on their own account."

After becoming bed-ridden, the symptoms of paresis developed more decidedly. She became unable to guide her hand in using a tooth-brush; the eyelids would droop, and remain down for two or three hours. There was tingling pain in the feet and arms and body.

In May, 1871, the patient was consigned by Dr. Percy to my care during his absence on a visit to Europe. I found her extremely emaciated, pale, and weak; voice feeble, and utterance slow and interrupted. She lay on the back, with her eyes closed. In carrying anything to her mouth, she had to use both hands to guide them correctly.

There was divergent strabismus and uncertain nystagmic fixation; vision so reduced that she could decipher only fruit about the size of Snellen 50 at four feet. I tried to use the ophthalmoscope, and with difficulty could see that the optic nerves were in a state of atrophy.

I learned that difficulty in swallowing had been coming on for many months, and now had become a serious distress. Mastication was not well performed, while the soft palate, the tongue, and the pharynx could not do their work. Sometimes she spent half an hour in the attempt to swallow a single bolus. Soft solids and liquids would often come out through the nose, Food sometimes lodged in the posterior nares, and then gave her great annoyance. The sense of taste was blunted, but not destroyed. Smell, which was normally very acute, was impaired, and strong odors gave pain. Hearing was intensified and painfully acute. She did not complain of tinnitus.

She had imperfect control of the motions of the lips and of the tongue. The lips felt stiff; the tongue could not be completely extruded from the mouth, nor could she turn its point upwards towards the nose, nor move it about the mouth with readiness. There was no evidence of paralysis of the seventh nerve.

There was constant headache, chiefly frontal—it occurred sometimes in violent seizures, which lasted from one to three days, and from sheer intensity produced partial spasms, but she never had distinct convulsions.

Intellect was always clear; there was no delirium. Sleep was seldom enjoyed; it was always short, and rarely could be had at night.

The secretion of urine was normal; the skin moist, rather cool; pulse weak, but not often over 90; the bowels acted occasionally; the stomach was sometimes nauseated. The quantity of food taken was scanty, and the patient wasted away from week to week through starvation and suffering.

Her life flickered longer than I expected, and went out on the 30th of July, 1871, without any new symptoms.

My anticipation was that the autopsy would reveal a large tumor in the brain as the cause of the extensive series of symptoms which had thus betrayed themselves through nearly all the cranial nerves—especially had my belief in this diagnosis been fortified by the symptoms affecting the glossopharyngeal nerves, and my supposition was that a growth had begun about the middle fossa and reached back to the medulla.

The post-mortem examination took place twenty-four hours after death, and was made by the able pathologists, Dr. Francis Delafield and Dr. Eno.

No tumor or effusion of any kind was to be found within the cranium. There was no hemorrhage, and the vessels were healthy. The brain was incised in every direction; all the sections felt and looked healthy. There was nothing to be noted in the cerebellum nor in the medulla oblongata. In fact the brain was to the anatomists a perfectly normal one. They had been informed that brain-symptoms had been conspicuous, but they could find nothing to correspond.

There was no examination of the brain-tissue under the microscope—nor was the cord examined.

In the chest the heart was healthy; the lungs showed some emphysema and bronchitis. The abdomen was not opened nor the spinal canal.

The unsatisfactory conclusion of this case gave me great disappointment. I was unable to account for its remarkable features despite the opportunity of an autopsy. In searching the literature for light, I at length found what seems to me the true explanation of the case in the hypothesis of disseminated sclerosis of the brain and spinal cord to which Charcot called attention. An excellent account of this disease appeared in the *New York Medical Journal* for May and June, 1870, and in the *Medical Record* for August, 1870, by Dr. Meredith Clymer.

In this paper the great and pathognomonic symptom of tremor is set forth with emphasis, and that was a distinctive feature of Miss A.'s case. The successive and irregular developments of paresis, the attack of the optic nerves, the dysphagia, the headache, the staggering gait, in fine, the whole train of symptoms, find explanation

in the supposition of small patches of sclerosis of nerve-cells and fibres disseminated through the nervous system. That a careful study under the microscope, aided by the searching chemical tests which are now in use, would have demonstrated this lesion I do not doubt, and I regret in the greatest degree that such a scrutiny was not made. I cannot expect my conclusion to be accepted without some hesitation, but I believe it will stand a critical test, and the case I think deserves record.

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